

REMARKS

In the Office Action, Claims 1-28 are pending and stand rejected. In response, Claims 1, 3, and 7-28 are amended, claims 2 and 4-6 are cancelled and no claims are added. Applicants respectfully request reconsideration of pending claims in view of the above amendments and the following remarks.

I. Drawing Objections

Regarding the objection to the drawings, a replacement sheet is provided for Fig. 30 to indicate that Fig. 30 illustrates prior art. In view of the replacement sheet, please withdraw the objection to the drawing.

II. Objections to the Specification

The title of the invention is objected to as not descriptive. Regarding the title of the invention, the title of the invention has been modified as follows:

PACKET COMMUNICATION METHOD WITH INCREASED TRAFFIC
ENGINEERING EFFICIENCY.

Therefore, please reconsider and withdraw the objection to the specification.

III. Claim Objections

Claims 1-28 are objected to on the grounds of various informalities. Regarding the objection to Claims 1-28, Claims 1, 3, and 7-28 have been amended according to the Examiner's suggestions. Therefore, in view of the amendments to Claims 1, 3, and 7-28, please reconsider and withdraw the objection to the claims.

IV. Claim Rejections Under 35 U.S.C. §112

Claims 1-28 are rejected under 35 U.S.C. §112 as being indefinite for various reasons. In response, Claims 1, 3, 5, 9, and 17 have been amended to rectify the deficiencies identified by the Examiner. Therefore, in view of the amendments to the claims, we submit that claim 1, 3, and 7-28 particularly point out and distinctly claim the subject matter which Applicant considers to be the invention. In view of the above, please reconsider and withdraw the rejection under 35

U.S.C. §112 of claims 1, 3, and 7-28.

V. Claim Rejections Under 35 U.S.C. §103

Claim 1 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication 2005/0018608 to Wetherall, et al. (“Wetherall 1”) in view of U.S. Patent 7,058,015 to Wetherall (“Wetherall 2”) and U.S. Patent 6,618,397 to Huang (“Huang”). Applicants respectfully traverse this rejection.

Regarding Claim 1, Claim 1 the following features which are not disclosed or suggested by the combination of Wetherall 1, Wetherall 2, and Huang:

the said at least one frame transfer apparatus comprises
a second registration procedure which registers a transfer destination of the received lower layer frame in a second table for each destination address contained in the lower layer frame,
a second counter procedure which counts a quantity of ~~the~~ transferred lower layer frames ~~frame~~ for each type of lower layer address pair contained in the first information received from the packet transfer apparatus, and
a second transmission procedure which transmits, to the network control server, second information about ~~the~~ each lower layer address pair counted by the second counter procedure beyond a predetermined threshold value within a predetermined time, and
the network control server comprises
a calculation procedure which, upon receiving the second information, extracts the transmission source address and the destination address from the second information and executes calculation to optimize the communication route in the network between the transmission source address and the destination address, and
a change procedure which changes registration of the sending destination of the received lower layer frame₁ registered in the first table and second table₂ on the basis of the calculation result.

While Applicant’s argument here is directed to the cited combination of references, it is necessary to first consider their individual teachings, in order to ascertain what combination (if any) could be made from them.

Regarding Wetherall 1, Wetherall 1 is generally directed to progressive and distributed

regulation of selected network traffic destined for a network node. As correctly recognized by the Examiner, Wetherall 1 fails to disclose or suggest a lower layer frame containing an encapsulated upper layer packet; a packet transfer apparatus that comprises an extraction procedure which extracts, from the received lower layer frame, a lower layer address pair including a transmission source address and a destination address of a lower layer; and a transmission procedure which transmits, to the frame apparatus, first information representing the lower layer address pair. (See page 10, paragraph 2.) As a result, the Examiner cites Wetherall 2.

Wetherall 2 is generally directed to a distributed solution for regulating network traffic. However, in contrast with Claim 1, Wetherall 2 discloses a request from a router or routing devices for data depicting network traffic routed through the routing device which Wetherall 2 refers to as network traffic statistical data. In contrast with Claim 1, Wetherall 2 also does not disclose or suggest a lower layer frame containing an encapsulated upper layer packet. As a result, the Examiner cites Huang.

Huang is generally directed to a group packet encapsulation and compression system. As described by Huang, packets queued at a node can be configured in accordance with the present invention or classified, grouped, and encapsulated into a single packet as a function of having another such configured node in their path. (See Abstract.) However, in contrast with Claim 1, Huang does not disclose or suggest a second counter procedure which counts a quantity of transferred lower layer frames for each type of lower layer address pair contained in the first information received from the packet transfer apparatus, much less a second transmission procedure which transmits, to the network control server, second information about each lower layer address pair counted by the second counter procedure beyond a predetermined threshold value within a predetermined time.

Hence, no combination of Wetherall 1, Wetherall 2, and Huang can disclose, teach or suggest a second counter procedure which counts a quantity of transferred lower layer frames for each type of lower layer address pair contained in the first information received from the packet transfer apparatus, much less a second transmission procedure which transmits, to the network control server, second information about each lower layer address pair counted by the second counter procedure beyond a predetermined threshold value within a predetermined time, as in Claim 1.

Furthermore, the Examiner has failed to identify, and we are unable to discern, any portion of either Wetherall 1, Wetherall 2, or Huang that discloses, teaches, or suggests a network control server that comprises a calculation procedure that executes a calculation to optimize the communication route in the network between the transmission source address and the destination address, much less a change procedure which changes registration of the sending destination of the received lower layer frame, registered in the first table and the second table, on the basis of the calculation result, as in Claim 1.

Hence, no combination of Wetherall 1, Wetherall 2, or Huang can disclose, teach or suggest a calculation procedure that extracts a transmission source address and a transmission destination address from second information and executes a calculation to optimize the communication route in the network between the transmission source address and the destination address, much less a change procedure which changes registration of the sending destination of the received lower layer frame, registered in the first table and second table, on the basis of the calculation result, as in Claim 1.

For each of the above reasons, therefore, Claim 1 and all claims which depend on Claim 1, are patentable over the cited prior art, as well as the other references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claim 1.

Each of Applicants' other independent claims contains limitations similar to those in Claim 1. Therefore, all of Applicants' other independent claims, and all claims which depend on them, are patentable over the cited art, for similar reasons. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 3 and 7-28.

DEPENDENT CLAIMS

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicant's silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

PETITION FOR EXTENSION OF TIME

Per 37 C.F.R. 1.136(a) and in connection with the Office Action mailed on March 4, 2008, Applicant respectfully petitions Commissioner for a one (1) month extension of time, extending the period for response to July 4, 2008. Please charge Deposit Account No. 02-2666 in the amount of \$120.00 to cover the petition filing fee.

CONCLUSION

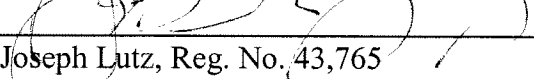
In view of the foregoing, it is believed that all claims now pending (1) are in proper form, (2) are neither obvious nor anticipated by the relied upon art of record, and (3) are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below to the United States Patent and Trademark Office.


Alexandra Y. Caluen July 1, 2008